19. An isolated and purified mixture of antibodies which bind with proteins of human immunodeficiency virus type 1 (HIV-1), wherein said proteins are p18 and p25 proteins of HIV-1.

20. An isolated and purified mixture of antibodies which bind with proteins of human immunodeficiency virus type 1 (HIV-1), wherein said proteins are p12, p15, p18, p25, p36, p42, and p80 proteins of HIV-1.

21. The mixture of antibodies according to any one of claims 18 to 20, wherein the antibodies are labeled with a label selected from the group consisting of a radioactive label, an enzymatic label, a fluorescent label, a chemiluminescent label, and a chromophore label.

22. An isolated and purified antibody which binds with an immunological complex, wherein the complex comprises a protein of human immunodeficiency virus type 1 (HIV-1) and an antibody to said protein, wherein said protein is p12 protein of HIV-1.

23. An isolated and purified antibody which binds with an immunological complex, wherein the complex comprises a protein of human immunodeficiency virus type 1 (HIV-1) and an antibody to said protein, wherein said protein is p18 protein of HIV-1.

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24. The antibody according to claim 22 or 23, wherein the antibody is labeled with a label selected from the group consisting of a radioactive label, an enzymatic label, a fluorescent label, a chemiluminescent label, and a chromophore label.

25. An isolated and purified mixture of antibodies which bind with immunological complexes, wherein the complexes comprise proteins of human immunodeficiency virus type 1 (HIV-1) and antibodies to said proteins, wherein said proteins are p12 and p25 proteins of HIV-1.

26. An isolated and purified mixture of antibodies which bind with immunological complexes, wherein the complexes comprise proteins of human immunodeficiency virus type 1 (HIV-1) and antibodies to said proteins, wherein said proteins are p18 and p25 proteins of HIV-1.

27. An isolated and purified mixture of antibodies which bind with immunological complexes, wherein the complexes comprise proteins of human immunodeficiency virus type 1 (HIV-1) and antibodies to said proteins, wherein said proteins are p12, p15, p18, p25, p36, p42, and p80 proteins of HIV-1.

28. The mixture of antibodies according to any one of claims 25 to 27, wherein the antibodies are labeled with a label selected from the group consisting of a radioactive label, an enzymatic label, a fluorescent label, a chemiluminescent label, and a chromophore label.

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29. An isolated and purified immunological complex comprising a protein of human immunodeficiency virus type 1 (HIV-1) and an antibody against said protein, which antibody binds with said protein, wherein said protein is p12 protein of HIV-1.

30. An isolated and purified immunological complex comprising a protein of human immunodeficiency virus type 1 (HIV-1) and an antibody against said protein, which antibody binds with said protein, wherein said protein is p18 protein of HIV-1.

31. The complex according to claim 29 or 30, wherein the complex is labeled with an immunoassay label selected from the group consisting of a radioactive label, an enzymatic label, a fluorescent label, a chemiluminescent label, and a chromophore label.

32. A method for the preparation of an antibody which specifically binds with a protein of human immunodeficiency virus type 1 (HIV-1), wherein said protein is selected from the group consisting of p12 and p18 of HIV-1, and wherein said method comprises:

(1) immunizing a mammal with a protein of HIV-1 selected from the group consisting of p12 and p18;

(2) isolating splenocytes from said mammal;

(3) fusing the splenocytes with a cell line to produce a hybrid;

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(4) culturing the hybrid; and

(5) selecting the hybrids which produce antibodies to said protein.

33. A method according to claim 32 further comprising cloning the selected hybrids.

34. A method according to claim 32, wherein the selection step comprises centrifuging the cultured hybrids to produce a supernatant, and detecting antibodies to said protein in the supernatant.

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35. A method according to claim ~~32 or~~ 34, wherein the detection step employs at least one member of the group consisting of enzyme-linked immunosorbent assay (ELISA), radioimmunoassay (RIA), Western blot assay, and immunofluorescence assay.

36. A method according to claim 32 further comprising labeling said protein with a label selected from the group consisting of a radioactive label, an enzymatic label, a fluorescent label, a chemiluminescent label, and a chromophore label.--

REMARKS

Applicants courteously request formal examination of this application.

The specification has been amended to recite the current status of related applications, to correct minor grammatical errors, and to recite the location of the named biological depository.

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